

SEP 30 2005

K05 2220

SEP 30 2005  
**510 (K) Summary of Safety and Effectiveness  
for iPlan RT FiberTracking**

**Manufacturer:**

Address: BrainLAB AG  
Ammerthalstrasse 8  
85551 Heimstetten  
Germany  
Phone: +49 89 99 15 68 0  
Fax: +49 89 99 15 68 33

Contact Person: Mr. Per Persson

Summary Date: August 11, 2005

**Device Name:**

Trade name: iPlan RT FiberTracking

Common/Classification Name: Planning System / Medical charged-particle radiation therapy system

**Predicate Device:**

iPlan! FiberTracking (K041703).

Intuition Image (K032511).

Device Classification Name: Medical charged-particle radiation therapy system

Regulatory Class: Class II

**Indications For Use:**

iPlan RT FiberTracking's indications for use is to prepare and present patient and image data based on CT, MR, Angiographic and other imaging sources including

- image preparation
- image localization
- image fusion
- image segmentation
- isocenter handling
- plan review and approval
- fiber tracking

where the result is used for stereotactic radiation treatment planning that is intended for use in stereotactic, conformal, computer planned, LINAC based radiation treatment of cranial, head and neck and extracranial lesions.

**Fiber Tracking:**

iPlan RT FiberTracking's indication for use is to prepare and present patient and image data based on MRI scanned with diffusion-weighted sequences. These diffusion images are used for the calculation and display of

fiber bundles in a selected region of interest. The created treatment plans of iPlan RT FiberTracking can be used with other iPlan treatment plans and other BrainLAB medical devices such as BrainSCAN, iPlan RT Image, and iPlan RT Dose where this medical device is used for radiotherapy treatment planning.

**Device Description:**

iPlan RT FiberTracking is developed to enhance the functionality of Intuition Image software with the import and planning of diffusion tensor images (DTI). Additional to the basic functions of Intuition Image (viewing, drawing, image fusion and stereotactic radiotherapy pre-planning) this application provides functions for the import and display of MRI anisotropic data, image processing of the DTI data and the display of calculated fiber tracks.

**Substantial equivalence:**

iPlan RT FiberTracking has been verified and validated according to BrainLAB's procedures for product design and development. The validation proves the safety and effectiveness of the system. The information provided by BrainLAB in this 510(k) application was found to be substantially equivalent with the predicate device iPlan! FiberTracking (K041703) and Intuition Image (K032511).



SEP 30 2005

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Mr. Rainer Birkenbach  
Executive Vice President  
BrainLAB AG  
Ammerthalstrasse 8  
85551 Heimstetten  
Germany

Re: K052220  
Trade/Device Name: iPlan RT FiberTracking  
Regulation Number: 21 CFR 892.5050  
Regulation Name: Medical charged-  
particle radiation therapy system  
Regulatory Class: II  
Product Code: IYE, MUJ  
Dated: August 11, 2005  
Received: August 15, 2005

Dear Mr. Birkenbach:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at one of the following numbers, based on the regulation number at the top of this letter:

21 CFR 876.xxxx	(Gastroenterology/Renal/Urology)	240-276-0115
21 CFR 884.xxxx	(Obstetrics/Gynecology)	240-276-0115
21 CFR 892.xxxx	(Radiology)	240-276-0120
Other		240-276-0100

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



Nancy C. Brogdon  
Director, Division of Reproductive,  
Abdominal, and Radiological Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

510(k) Number (if known): K052220Device Name: iPlan RT FiberTracking**Indications For Use:**

iPlan RT FiberTracking's indications for use is to prepare and present patient and image data based on CT, MR, Angiographic and other imaging sources including

- image preparation
- image localization
- image fusion
- image segmentation
- isocenter handling
- plan review and approval
- fiber tracking

where the result is used for stereotactic radiation treatment planning that is intended for use in stereotactic, conformal, computer planned, LINAC based radiation treatment of cranial, head and neck and extracranial lesions.

**Fiber Tracking:**

iPlan RT FiberTracking's indication for use is to prepare and present patient and image data based on MRI scanned with diffusion-weighted sequences. These diffusion images are used for the calculation and display of fiber bundles in a selected region of interest. The created treatment plans of iPlan RT FiberTracking can be used with other iPlan treatment plans and other BrainLAB medical devices such as BrainSCAN, iPlan RT Image, and iPlan RT Dose where this medical device is used for radiotherapy treatment planning.

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use ☒  
(Per 21 CFR 801.109)

OR

Over-The-Counter Use ☐

(Division Sign-Off)

Division of Reproductive, Abdominal,  
and Radiological Devices

510(k) Number

K052220

(Optional Format I-2-96)